A

Project Report

On

IIIT HALL MANAGEMENT SYSTEM

submitted to

Rajiv Gandhi University of Knowledge Technologies, Basar

for the partial fulfillment of the requirements of Software Engineering Project

by

Omprakash (B141480)

Ram Nayak(B141247)

Venu (B141666)

Under the guidance of

Assistant.Prof.A GangaMani

RGUKT-IIIT BASAR

Department of Computer Science and Engineering

RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES

Academic year(2018-2019)

Basar, Nirmal(DIST.),

TELANAGANA-504107

Department of Computer Science and Engineering

RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES, BASAR

CERTIFICATE

This is certify that Project Report entitled " **IIIT HALL MANAGEMENT SYSTEM**" submitted by **Omprakash(ID:B141480), Ram Nayak(ID:B141247) and Venu(ID:B141666)** Department of Computer Science and Engineering, Rajiv Gandhi University of Knowledge Technologies,Basar for partial fulfillment of the requirements for the degree of Bachelor of Technology in Computer Science and Engineering is a bonafide record of the work and investigations carries out by them under my supervision and guidance.

Project Supervisor

A.Gangamani

Assistant Professor

RGUKT IIIT BASAR

Head of the Department

G.Ranijith Kumar(MTech)

Assistant Professor

RGUKT IIIT BASAR

Department of Computer Science and Engineering

RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES,BASAR

DECLARATION

We hereby declare that the work which is being presented in this project entitled, **IIIT HALL MANAGEMENT SYSTEM** submitted to RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES,BASAR is the partial fulfillment of the requirements for the award of the degree of BACHELOR OF TECHNOLOGY in COMPUTER SCIENCE AND ENGINEERING, is an authentic record of our own work carried out under the supervision of Assistant.Prof.Gangamani at **RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES,BASAR.**

The matter embodied in this project report has not been submitted by us for the award of any other degree.

Table of Contents:

ABSTRACT

“ HALL MANAGEMENT CENTER ” is software to automate several Accounting activities associated with its day to day operations which replaces the traditional method of noting down the regular activities and simplify the tasks to make it lost longer for easy accessing and manipulation of the system.

1.1 Purpose:

If the SRS is written well,it will serves the following purposes.SRS is the agreement document between the client and the software developer.

1.2 Scope:

Hall Management Sysyem can be used in any colleges, Universities for maintaining student details their halls, rooms and mess.

2. Requirements Gathering:

2.1. Functional Requirements:

2.1.1 Register:

Input: Photograph, Approval letter from admission unit and required details.

Output: Hall name and room number.

2.1.2.Mess Bill pay:

Input: Mess fee of each student per month.
Output: printed cheques for each mess manager

2.1.3. Login:

Input: Username and password.
Output: Opens student page for valid credentials otherwise access denied.

2.1.4. Student Bill pay:

Input: Total due of student.
Output: Receipt.

2.1.5. Grievance:

Input: Complaints by students.
Output: Action taken report.

2.1.6. Annual Grant:

Input: Expenditure for each hall.

Output: Printout of total expenditure.

2.1.7. Search:

Input: Item name.
Output: Location and details of item.

2.1.8. Wage unit:

Input: Day laborer and their salary.
Output: Cheques for monthly basis.

2.2 Non- Functional Requirements:

Non-Functional Requirements(NFRs) define system attributes such as safety,security,reliability,performance,maintainability,scalability, and usability.They serve constraints or restrictions on the system.

2.2.1 Safety Requirements: Safety Requirements optimizes the system safety in the design,developement, use, and maintanance of the software systems and their integration with safety-critical hardware systems in an operational environment.

2.2.2 Security Requirements: All the administrative and data entry operators have unique logins so system can understand who is login into system right now no intruders allowed except system administrative nobody cannot change record and valuable data.

2.2.3 Reliability:

The probability of failure free software operation for a specified period of time in a specified environment.

2.2.4 Performance:

Response time-The system will give responses within 1second after checking the patient information and other information.

Capacity - The system must support 1000 people at a time
User interface- User interface screen will response within 5 seconds
Conformity - The system must conform to the Microsoft accessibility

2.2.5 Maintainability:

The ability to maintain ,modify information and update fix problems of the system.

2.2.6 Usability:

software can be used again and again without distortion.

2.3 Software Requirements:

Software interface allow you to access certain functionality in a system or a library without caring to the way it is implemented on the system.

Operating System: windows7
IDE: Net Beans
DataBase: Mysql Server

2.4 Hardware Requirements:

A Hardware interface is a combination of mechanical,electrical, and logical signals that define how a piece of hardware communicates with the system basically.

Processor: Intel core i5
RAM: 4GB
Hard disk: 500GB ,internet,Laptop

3.Functionalities:

Functionality 3.1:

3.1.1.Registration
3.1.2. Login
3.1.3. Search

Functionality 3.2:

3.2.1..Mess Bill pay
3.2.2. Student Bill pay
3.2.3. Booking

Functionality 3.3:

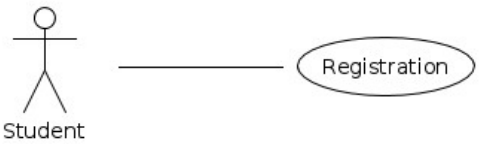
3.3.1..Annual Grant
3.3.2. Wage unit

Functionality 3.4:

3.4.1 Grievance

4.Usecase Description:

4.1 Registration:



Usecase **:** Registration
Primary Actor **:**Student
Scope **:**HMC
Level **:**1(Student goal)
Story:

Student registers by submitting his/her details accordingly hall name and room number are allotted to student.

4.1.1 Precondition:

Required details and other forms are gathered by student for submission

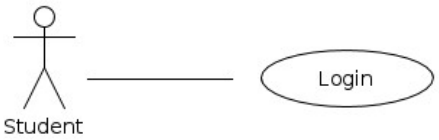
4.1.2 Postcondition:

Accommodation details such as Hall name and Room number are provided to student after successful registration

4.1.3 Trigger: Registering as students

4.1.4 Basic flow: The student registers by submitting his or her details such as name,age,mobile number,Approval letter from admission unit, photograph etc. In response person gets room number after successful registration.

4.2 Login:



Usecase **:** Login
Primary Actor **:** Student
Scope **:** HMC
Level **:** 1
Story:

Student enters his/her username and password to login into his/her account. Precondition: Student has to register.

Postcondition:

After authentication the page is redirected to his profile page

Trigger:

Student login will be done

Basic flow:

Student logins with his username and password where the page is redirected to his profile for valid credentials else the access is declined.

4.3 Search:

Usecase **:** Search
Primary Actor **:** Hall member
Scope **:**HMC
Level **:**1(Hall member goal)
Story :

Searching is done by any of hall members and result is displayed.

Precondition :

The required thing can be searched by entering in search field.

Postcondition :

Searching is done and result is obtained highlighting it.

Trigger :

Search will be done

Basic flow:

Search functionality can be used by any of the hall member such as student,warden,admin and clerk to search for required,related to hall then search result is displayed matching the entered characters.

4.4 Mess Bill pay:

Usecase **:** Mess Bill pay
Primary Actor **:** Student
Scope **:** HMC
Level **:** 2(Student goal)
Story:

The student pay fee for mess food. The charges are received by mess manager.

Precondition:

Student has to login.

Postcondition:

The payment is collected by mess manager and he submit the c heques to higher authority.

Trigger:

Student pay for mess food.

Basic flow :

The system provides a payment for mess food. The student clicks on payment button then it displays fee for particular student . If student pays the fee then mess manger receives the cheque and he submit cheques to higher authority.

4.5 Booking:

Usecase : Booking
Primary Actor : Student
Scope : HMC
Level : 2(Student goal)
Story:

There are different halls like study room,TV room etc. Student choose the halls based on his own interest and book the particular hall.

Precondition:

Student has to login.

Postcondition:

Student receives theconfirmation.

Basic flow:

Student choose particular hall and he book the hall if it is not available then it display halls are not available else it displaysuccessfully completed the booking and he receive the receipt.

4.6 Student Bill pay:

Usecase : Student Bill pay
Primary Actor : Student
Scope : HMC

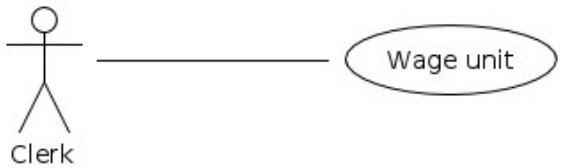
Level **:** 2(Student goal)
Story:
Total amout of fees paid by him for all his requirements.
Precondition:
Fees for different purposes like mess,amenties etc.
Postcondition:
System gives receipt to student for his payment.

Basic flow:
Student pays fee for hostel facility,food,different reading rooms like TVroom,Reading room in hall and gets receipt for all his utilities.

4.7 Annual Grant:

Usecase **:** Annual Grant
Primary Actor **:** Admin
Scope **:** HMC
Level **:** 3(Admin goal)
Story:
Calculate the Annual grant by collecting information from the Manager and clerks and cheque will be issued
Precondition:
clerk and Manger should be active in those respective pages.
Postcondition:
cheque will be issued
Trigger:
Total expenditure calculated
Basic flow:
In this Admin will take all studentinformation such as how much he spent on different halls such as mess,study room,TV room from respected wardens and staff salary information from the clerks then admin will calculate total annual grant and cheque willbe issued.

4.8 Wage Unit:



Usecase **:** Wage unit
Primary Actor **:** Clerk
Scope **:** HMC
Level **:** 3(Clerk goal)
Story:

In this clerk will give wages to gardeners,workers etc and give the report to the Administration.

Precondition:

clerk should be active in respective page.

Postcondition:

Calculate the total wages for monthly give report to the Administration.

Trigger:

Total wages calculated

Basic flow:

The clerk will collect total information about the number of labours,wages for labours and clerk give the wages to the every labour daily thencalculate the total wages for month and report the information to the Administration

4.9 Grievance:

Usecase **:** GrievancePrimary actor:Student
Scope **:** HMC
Level **:** 4(Student goal)
Story:

If the students have any problems regarding hostel rooms or related to hall,the student give complaint to the Admin.

Preconditions:

Student has to register.

Postconditions:

The complaints taken by the warden and shows status to the student.

Trigger:

Complaints and action

Basic flow:

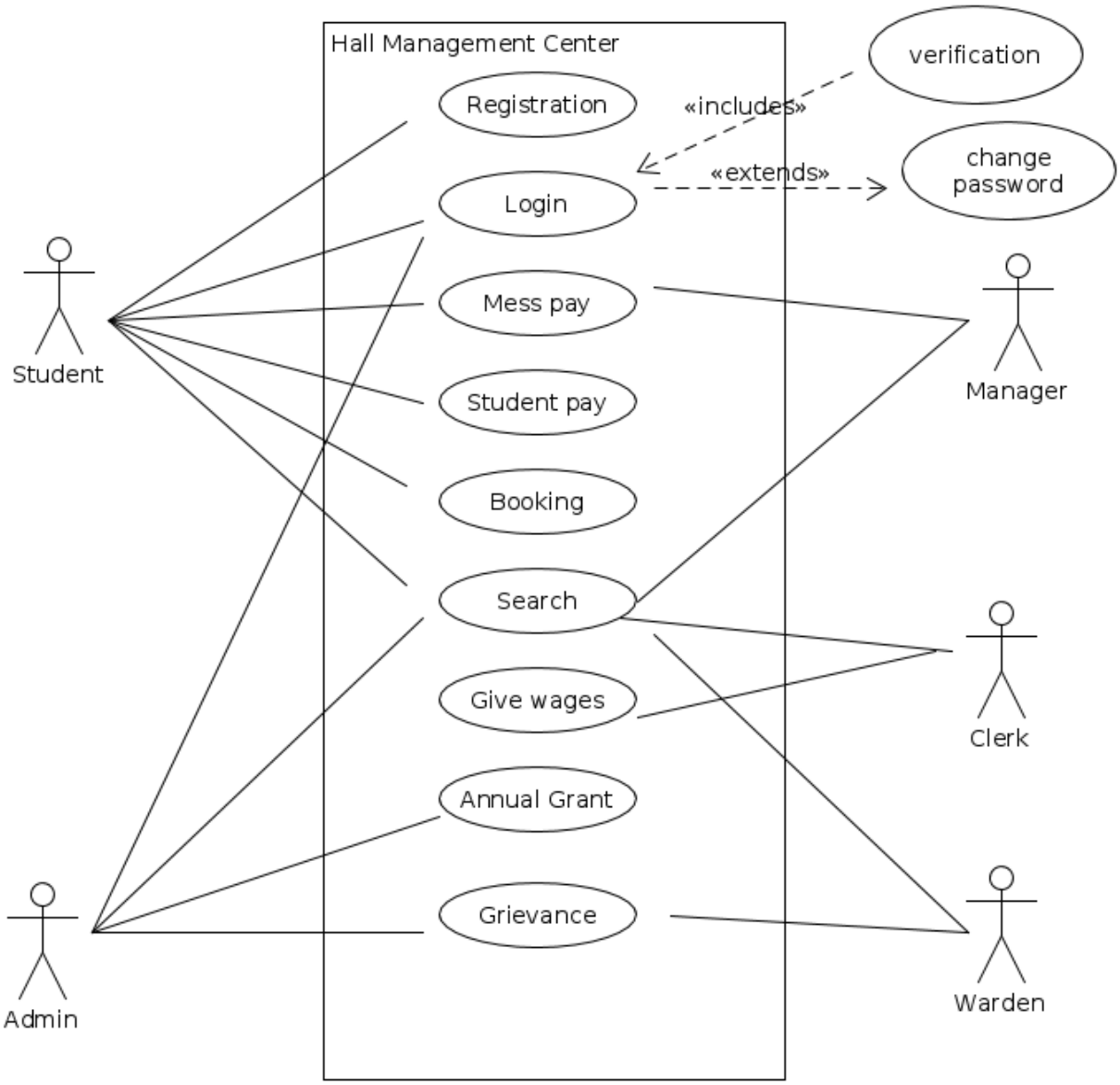
If the students have any problems,the student can complaint the problems to admin.After that the warden will take action to those

complaints and shows status to student. If it is solved it shows problem solved otherwise problem is pending mode I.e Action taken Report is given.

5.UML Diagrams

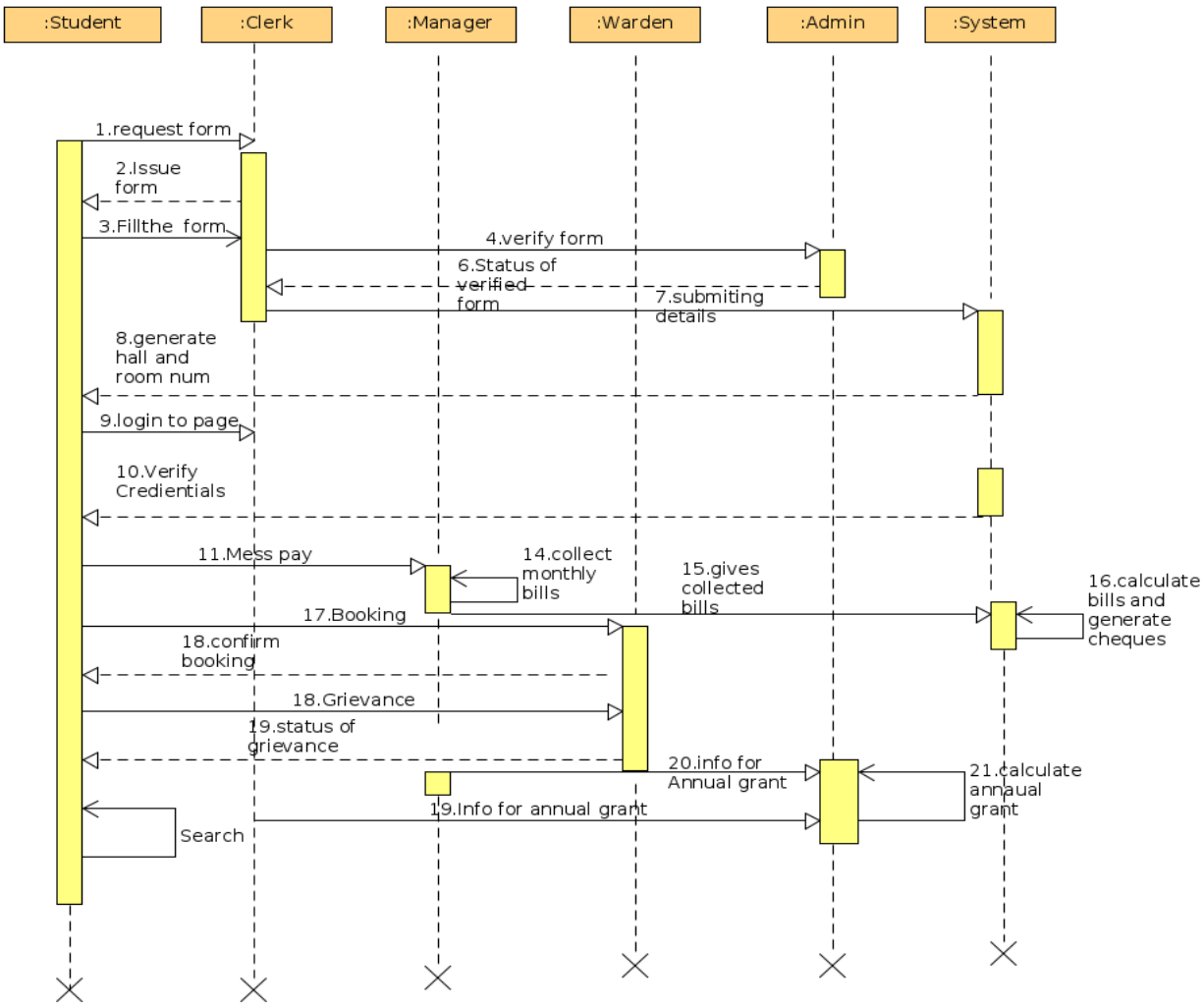
5.1. Usecase Diagram:

A use case diagram is a dynamic or behavior diagram in UML. Use case diagrams model the functionality of a system using actors and use cases. Use cases are a set of actions, services, and functions that the system needs to perform.



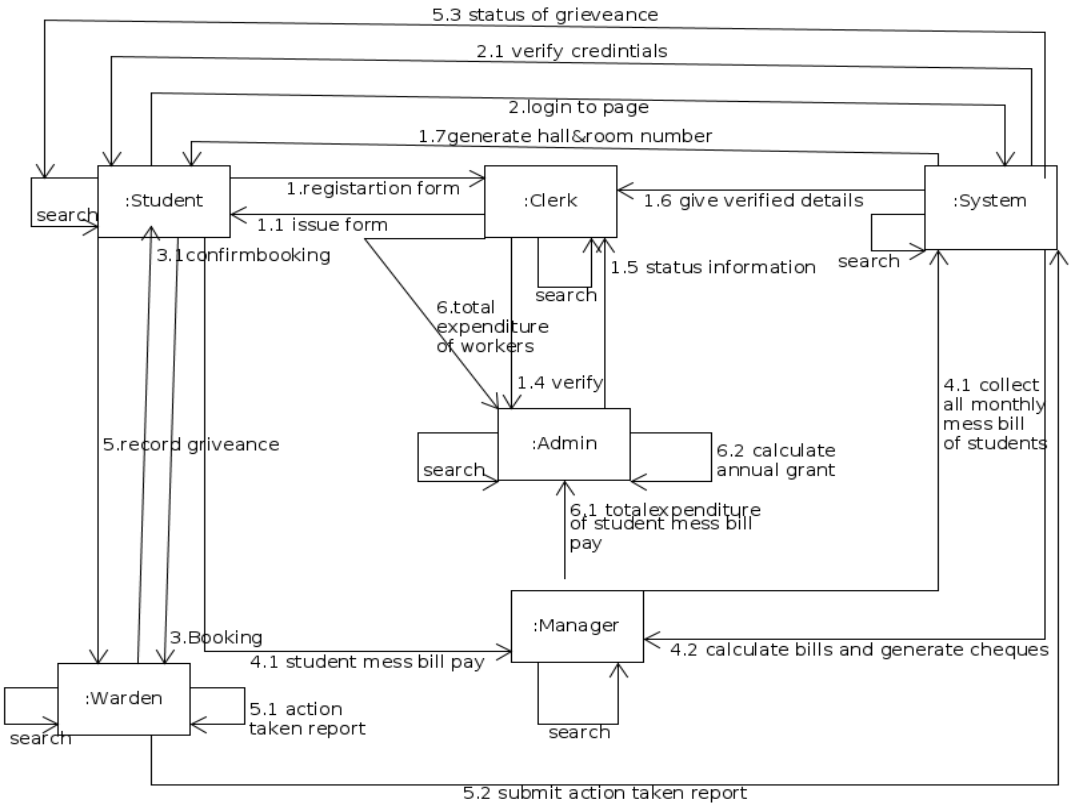
5.2. Sequence diagram:

A sequence diagram simply depicts interaction between objects in a sequential order i.e. the order in which these interactions take place. We can also use the terms event diagrams or event scenarios to refer to a sequence diagram. Sequence diagrams describe how and in what order the objects in a system function.



5.3. Collaboration Diagram:

A collaboration diagram, also called a communication diagram or interaction diagram, is an illustration of the relationships and interactions among software objects in the Unified Modeling Language (UML).



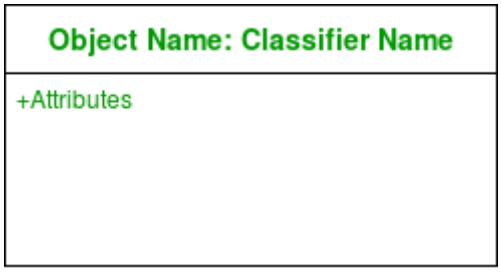
5.4. Class Diagram:

In software engineering, a class diagram in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations(or methods), and the relationships among objects.

5.4.1 Notations Used in Class Diagrams:

5.4.1.1.Objects or Instance specifications:

When we instantiate a classifier in a system, the object we create represents an entity which exists in the system.We can represent the changes in object over time by creating multiple instance specifications. We use a rectangle to represent an object in an Object Diagram. An object is generally linked to other objects in an object diagram.



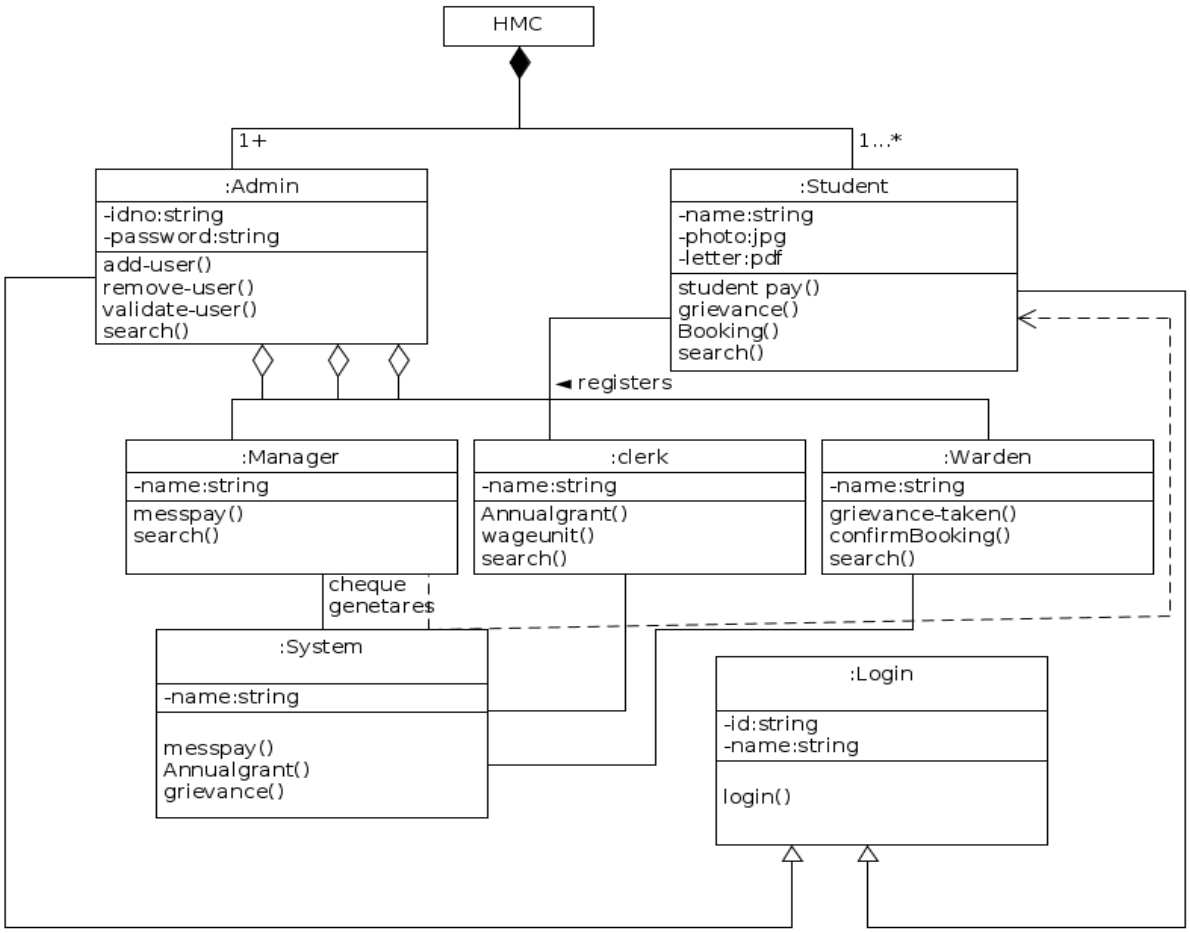
5.4..1.2.Links : We use a link to represent a relationship between two objects.

5.4.1.3.Dependency Relationships : We use a dependency relationship to show when one element depends on another element**.**

5.4.1.4.Association : Association is a reference relationship between two objects (or classes).

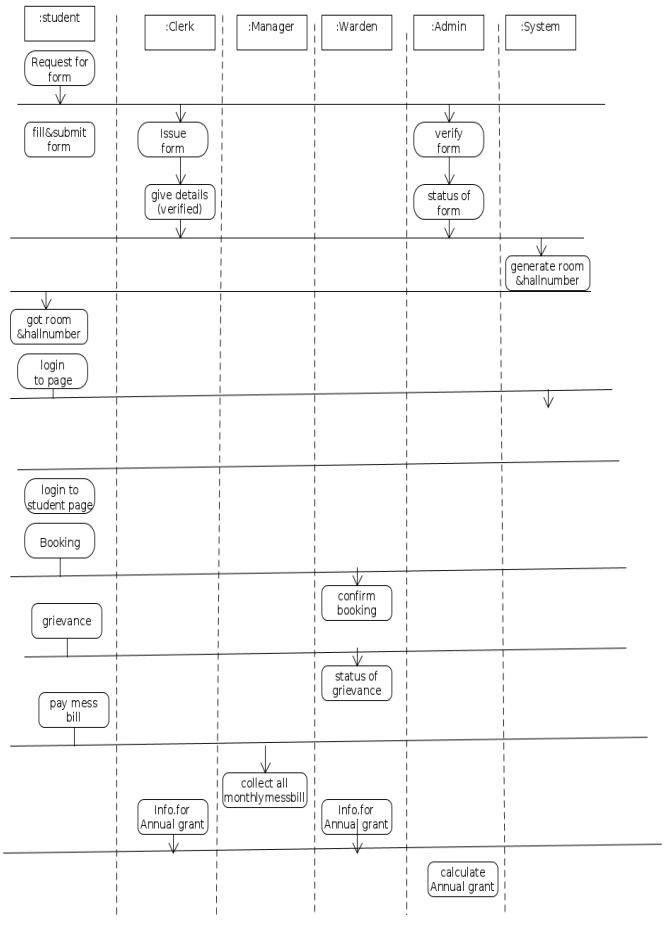
5.4.1.5.Aggregation : Aggregation represents a “has a” relationship.

5.4.1.6.Composition: Composition is a type of association where the child cannot exist independent of the other.

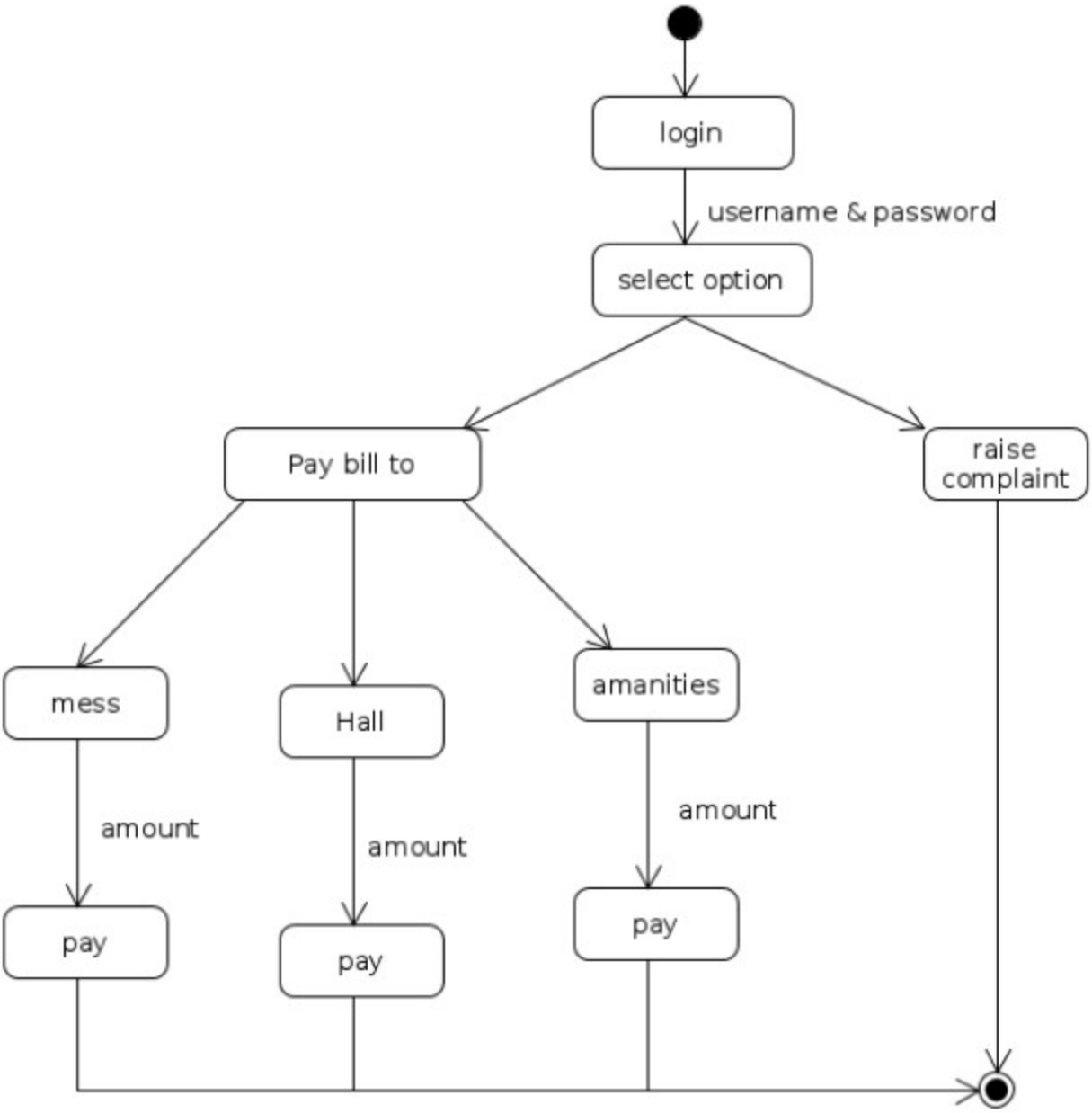


5.5. Activity Diagram:

Activity diagram is another important diagram in UML to describe the dynamic aspects of the system. Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity can be described as an operation of the system.

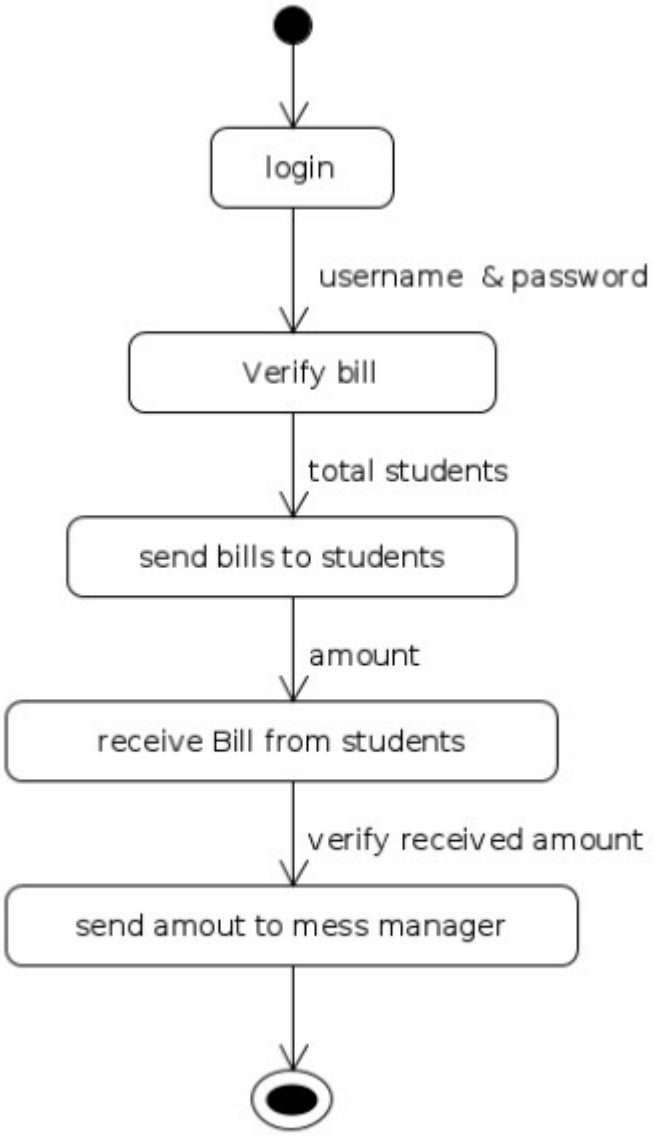


5.6.Statechart diagram:
5.6.1 STUDENT



Intially student login's and after login it goes to homepage(new state). Then student has 2 options to select 1. pay bill 2. raise compaint.
If student selects option 1 again he has 3 sub options to pay the bill to mess, hall and amaneties. He can choose any of those and pays the bill.
If student selects option 2 Student can raise a complaint.

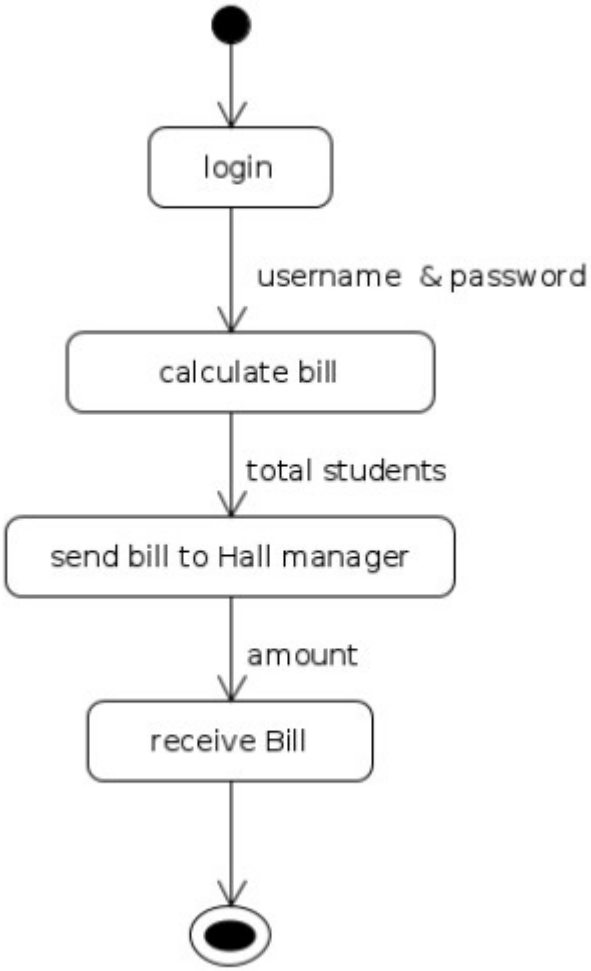
5.6.2 HALL MANAGER:



Initially he login's, after login he has the option to verify the bills sent by mess manager by giving an input of all students *amount(mess)of each student.After verifing HM sends bills to students.later he recieves an amountfrom students and again he verifies the amount with the bill if it is matching with the calculated bills. Finally send the received amount regarding the mess bill to mess manager.

5.6.3 MESS MANAGER:

Calculate the mess bill and send it to hall manager.

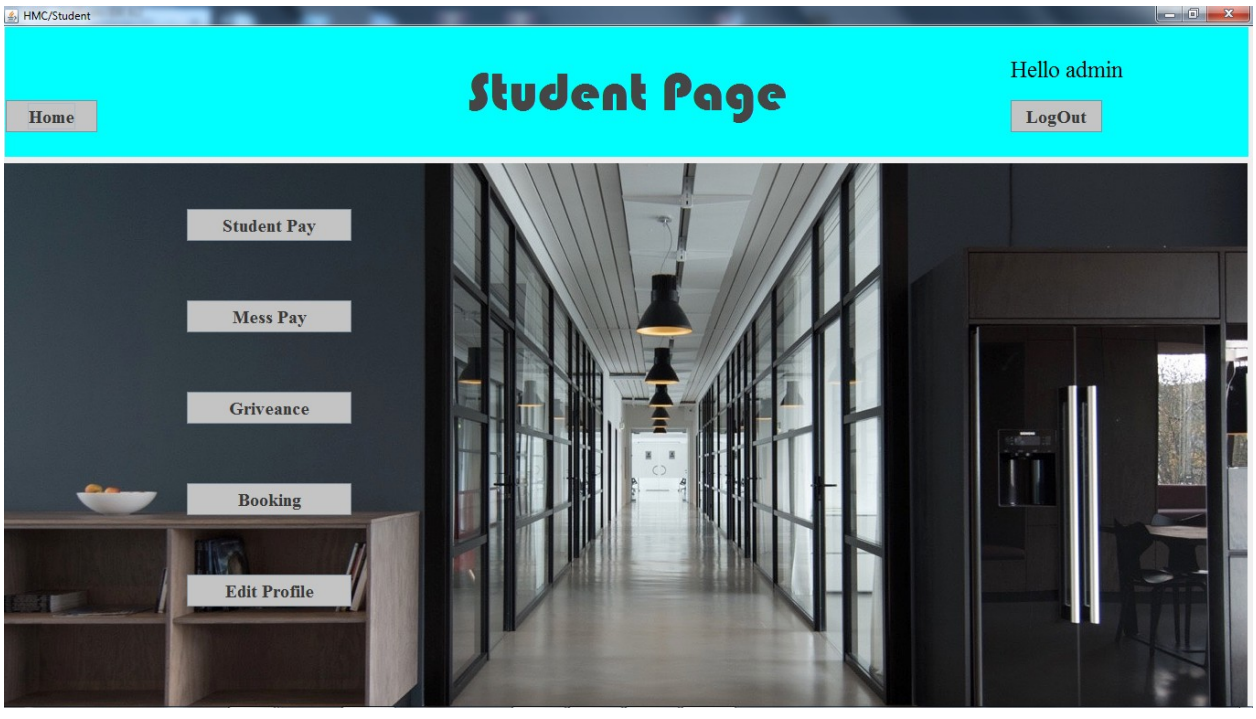


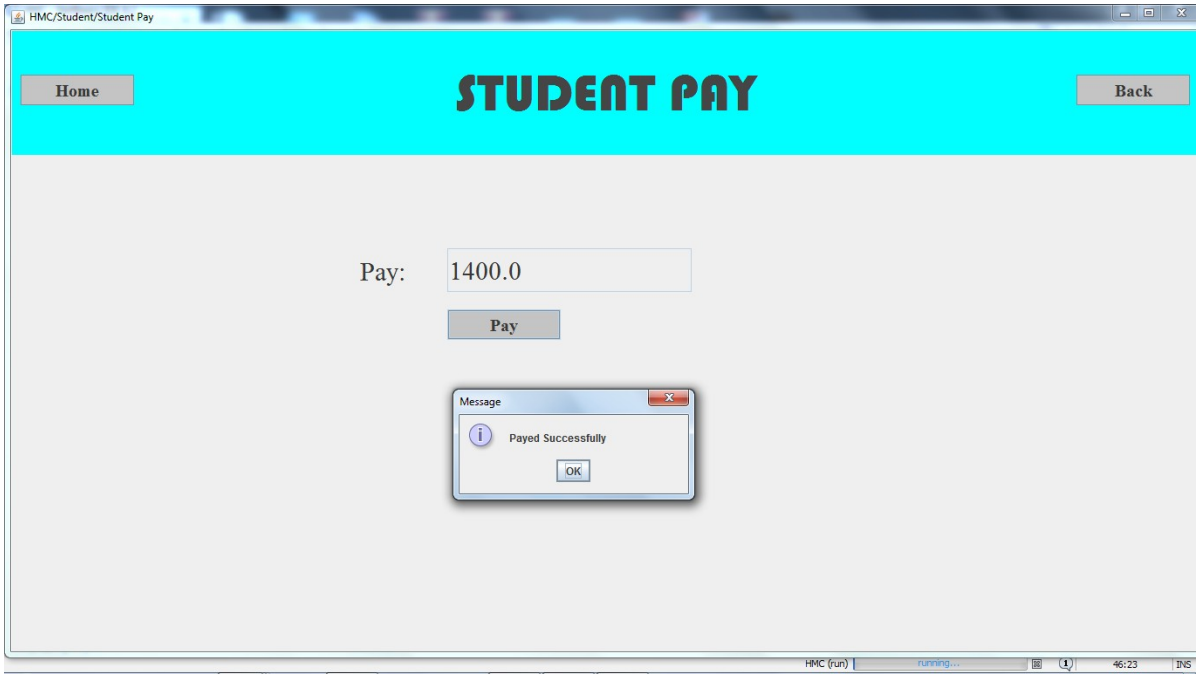
6. Screen Shots

starts at next page

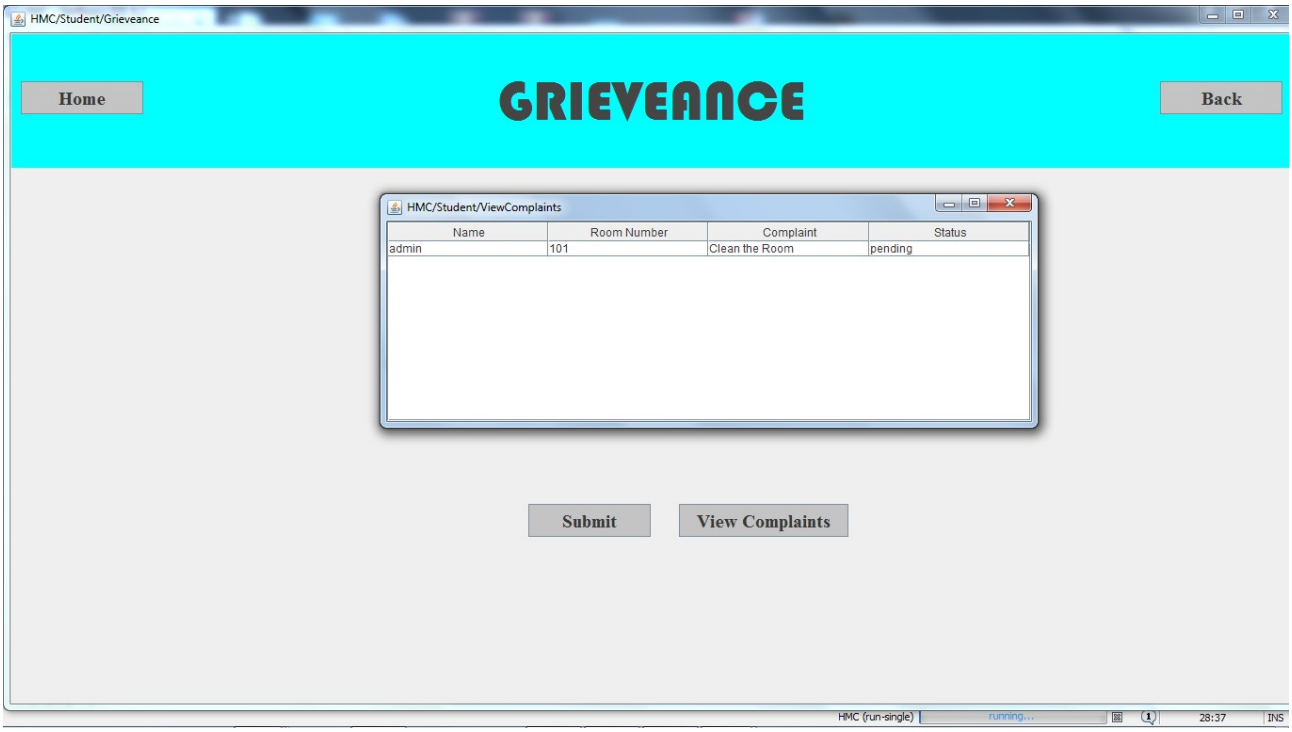

HMC
HALL MANAGEMENT CENTER
Student
Employee


HMC/LOGIN
Home
STUDENT LOGIN
UserName
admin
Password
*****
Login
Register

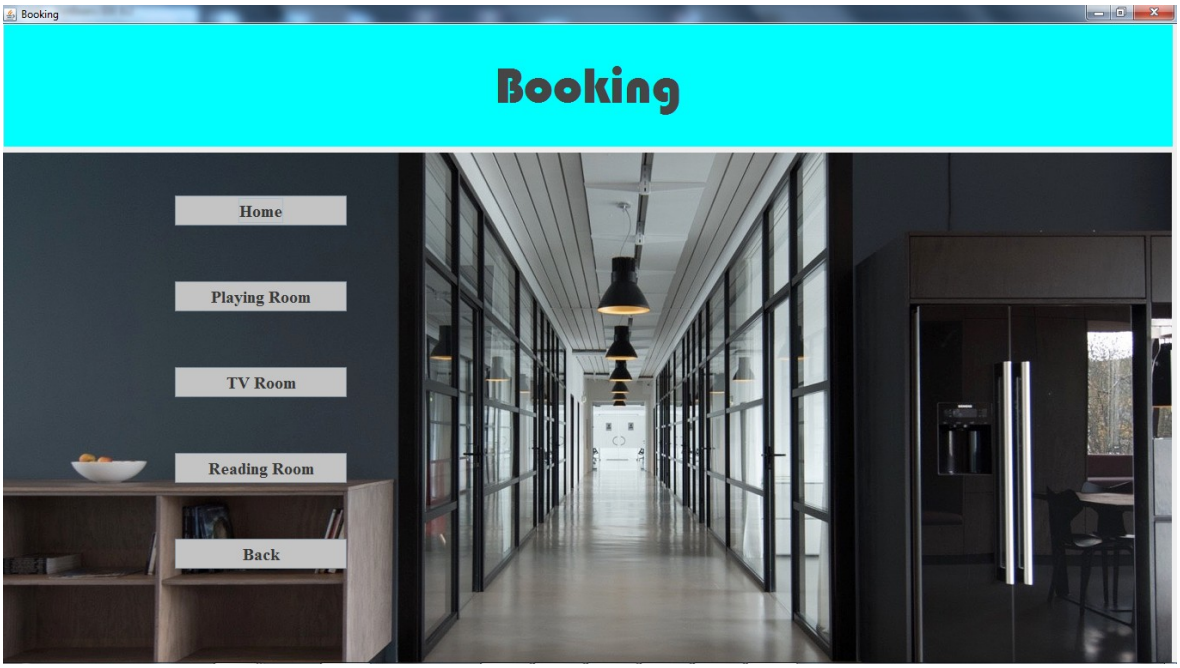

HMC/Student
Home
Student Page
Hello admin
LogOut
Student Pay
Mess Pay
Griveance
Booking
Edit Profile

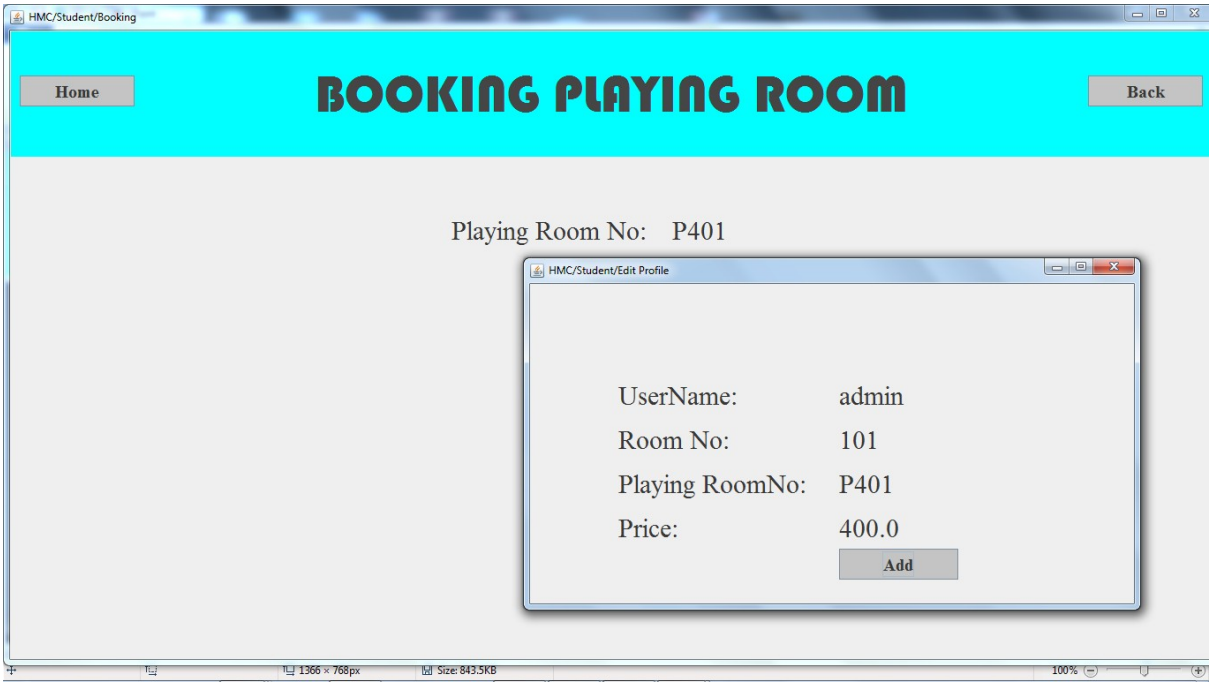

HMC/Student/Student Pay
Home
STUDENT PAY
Back
Pay:
1400.0
Pay
Message
Payed Successfully
OK


HMC/Student/Grieveance
Home
GRIEVEANCE
Back
UserName: admin
Room No: 101
Complaint:
Clean the Room
Message
Clean the Room is
Successfully sent to
The Warden
Thank You .....!
OK
ew Complaints


HMC/Student/Grieveance
Home
GRIEVEANCE
Back
HMC/Student/ViewComplaints
Name
Room Number
Complaint
Status
admin
101
Clean the Room
pending
Submit
View Complaints


HMC/Student/Mess Pay
Home
MESS PAY
Back
Pay:
1000.0
Pay
Message
Payed Successfully
OK


Booking
Booking
Home
Playing Room
TV Room
Reading Room
Back


HMC/Student/Booking
Home
BOOKING PLAYING ROOM
Back
Playing Room No: P401
HMC/Student/Edit Profile
UserName: admin
Room No: 101
Playing RoomNo: P401
Price: 400.0
Add

HMC/Student/Grieveance

Home

GRIEVEANCE

Back

UserName: admin

Room No: 101

Complaint: Clean the Room

Submit | View Complaints

HMC/Student/Edit Profile

Home

EDIT PROFILE

Back

UserName: admin

Room No: 101

Password: show

Email:

Message

Updated Successfully

OK

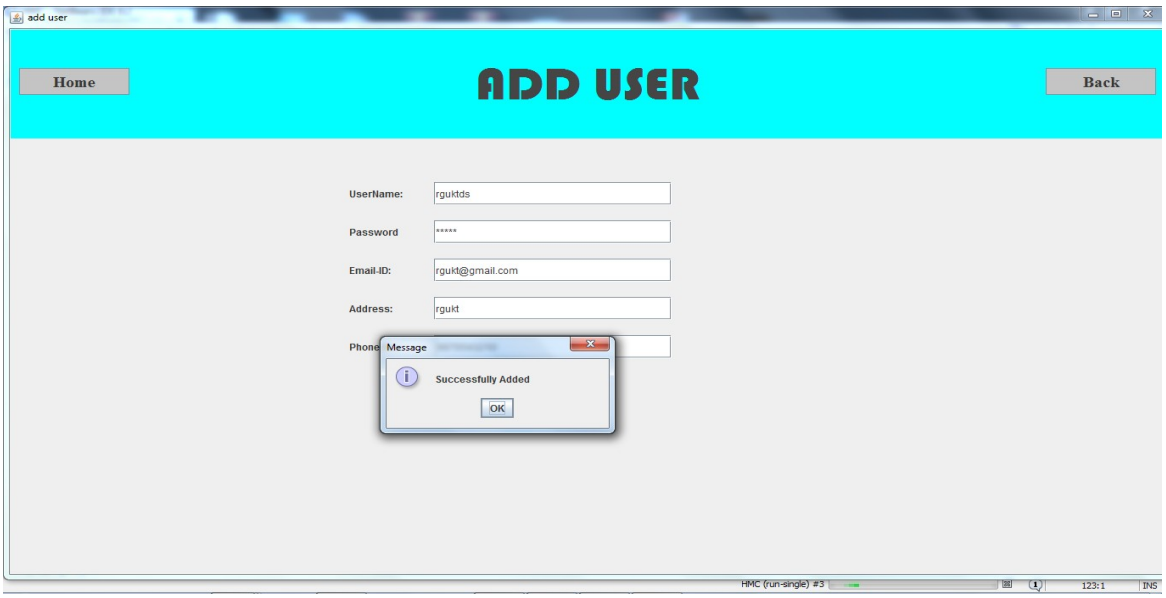
Address: rgukt123

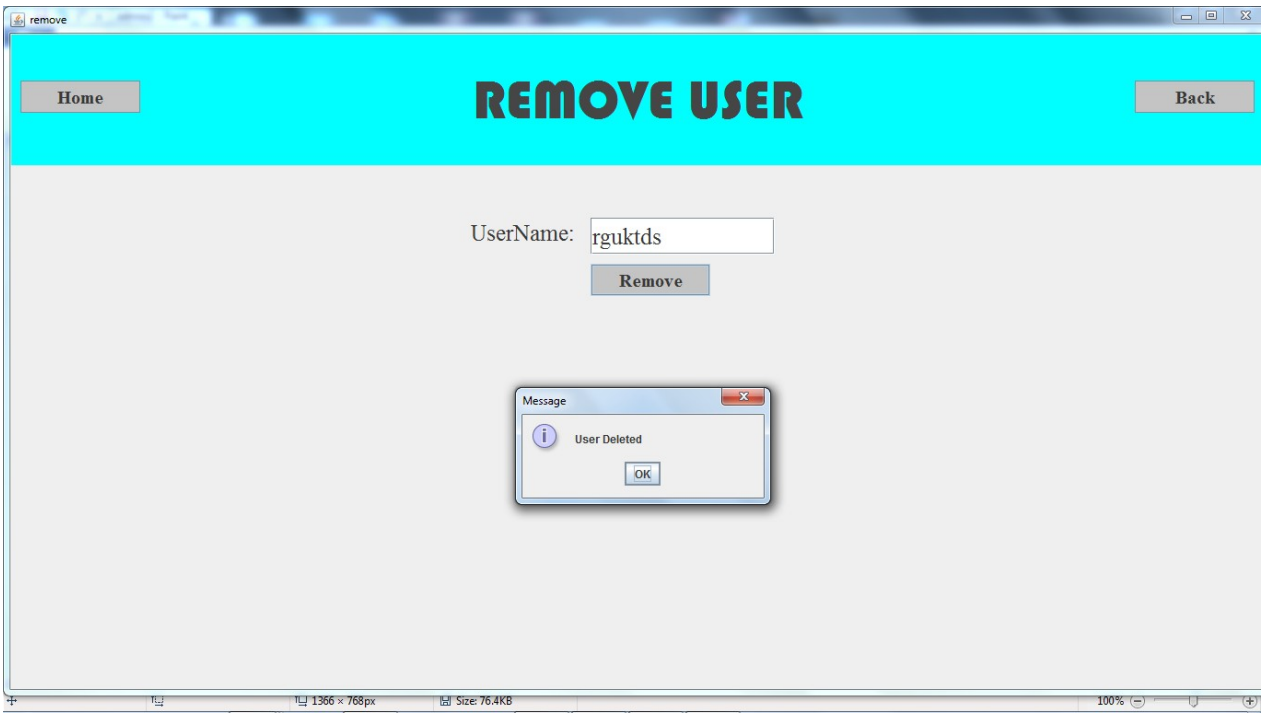
Phone No: 8123456789

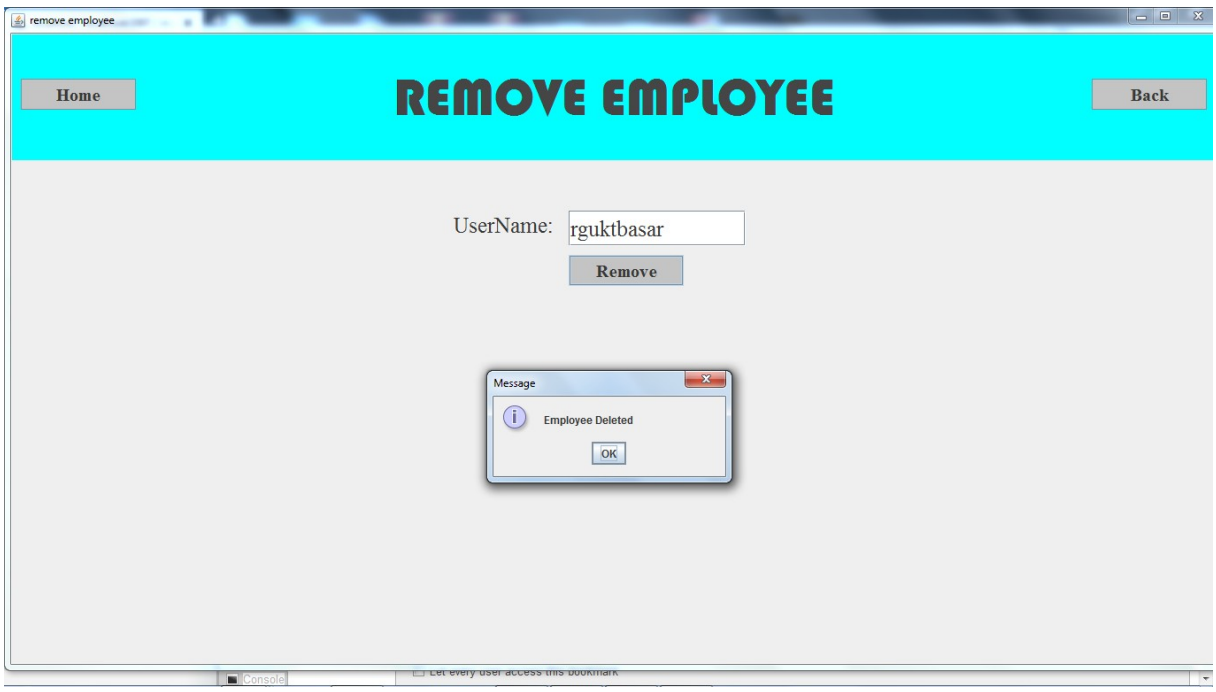
Update

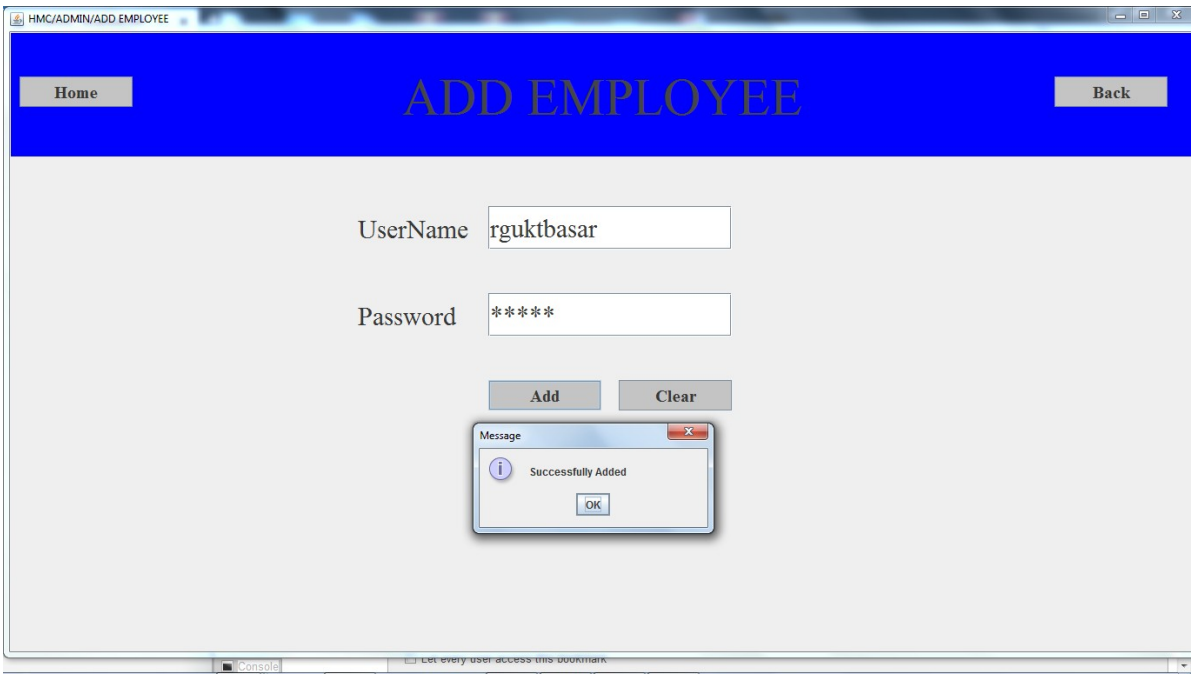
Admin

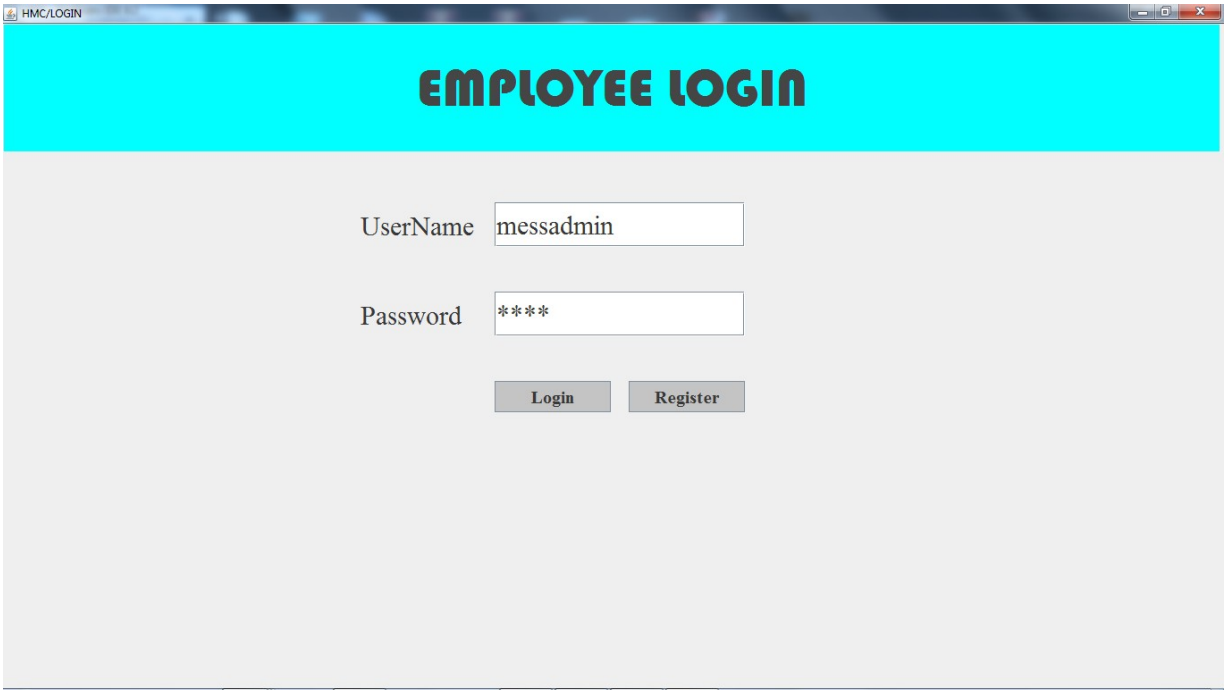
ADMIN

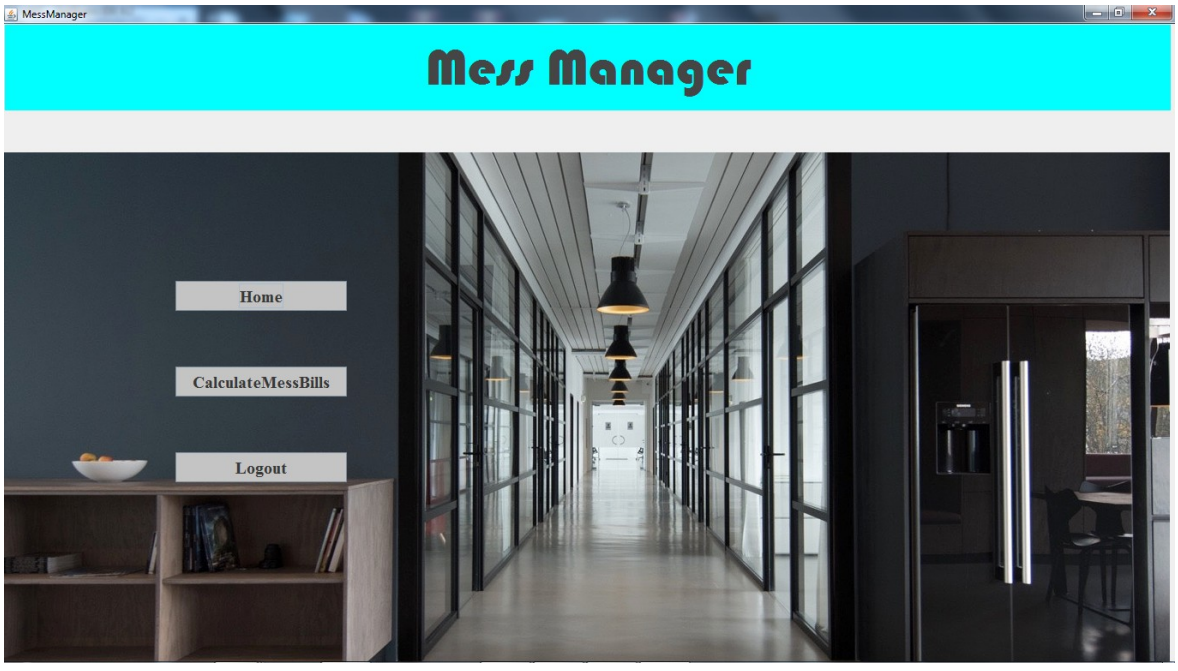

add user
Home
ADD USER
Back
UserName:
rguktds
Password
*****
Email-ID:
rgukt@gmail.com
Address:
rgukt
Phone
Message
Successfully Added
OK

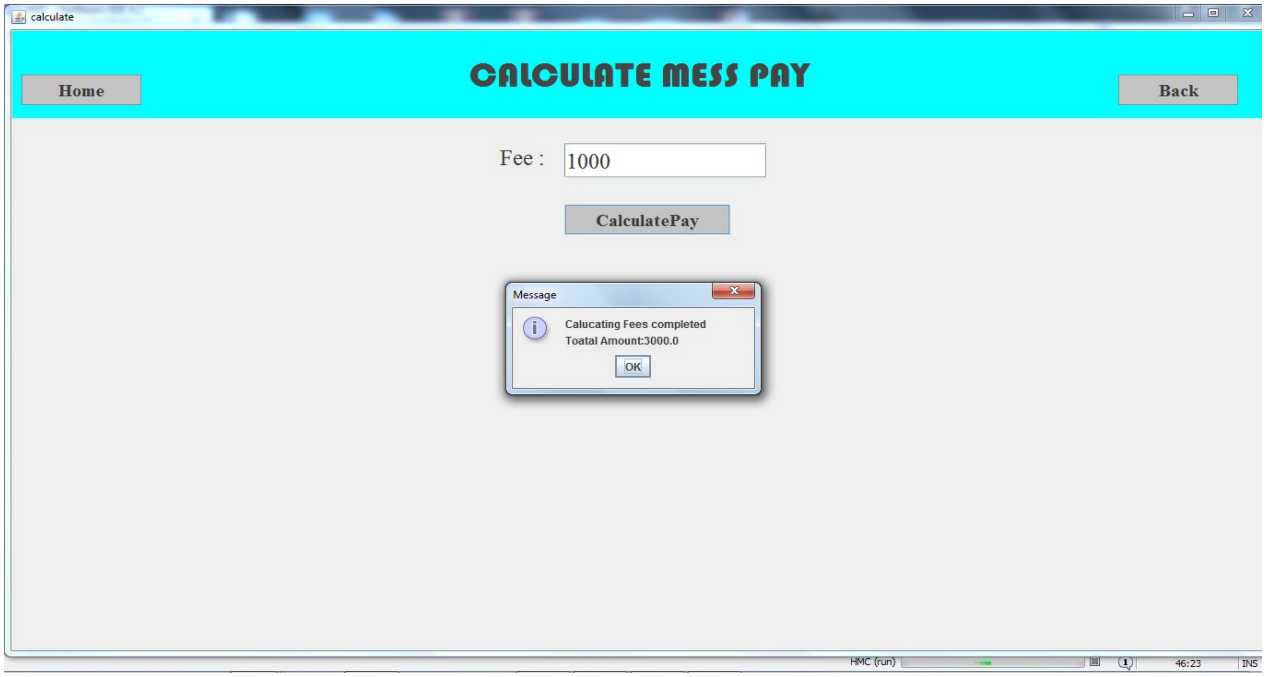

remove
Home
REMOVE USER
Back
UserName:
rguktds
Remove
Message
User Deleted
OK

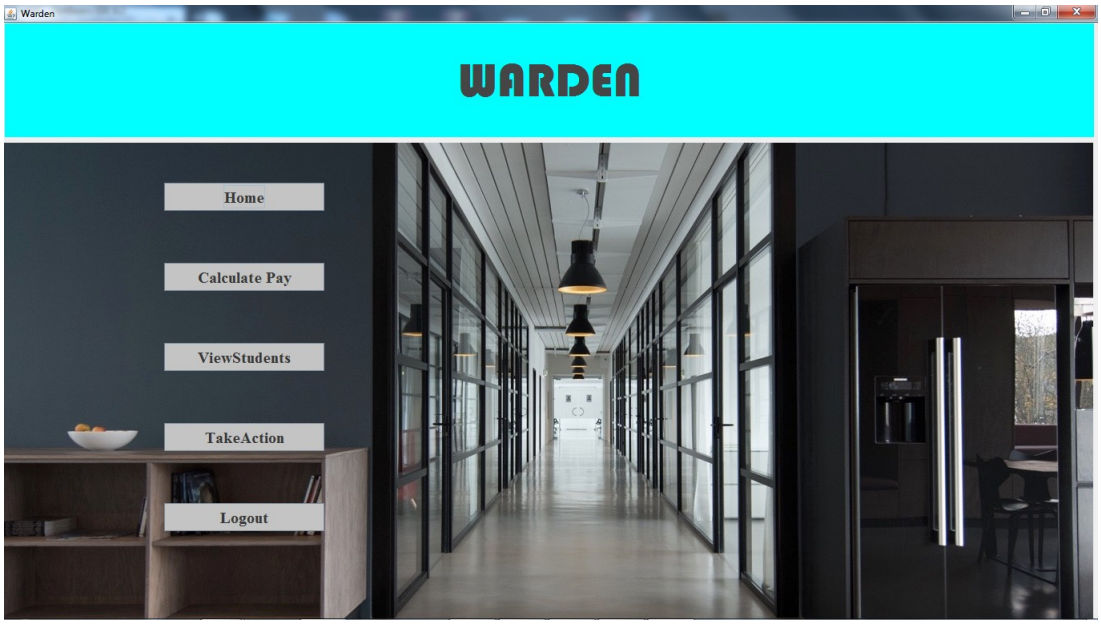

remove employee
Home
REMOVE EMPLOYEE
Back
UserName:
rguktbasar
Remove
Message
Employee Deleted
OK

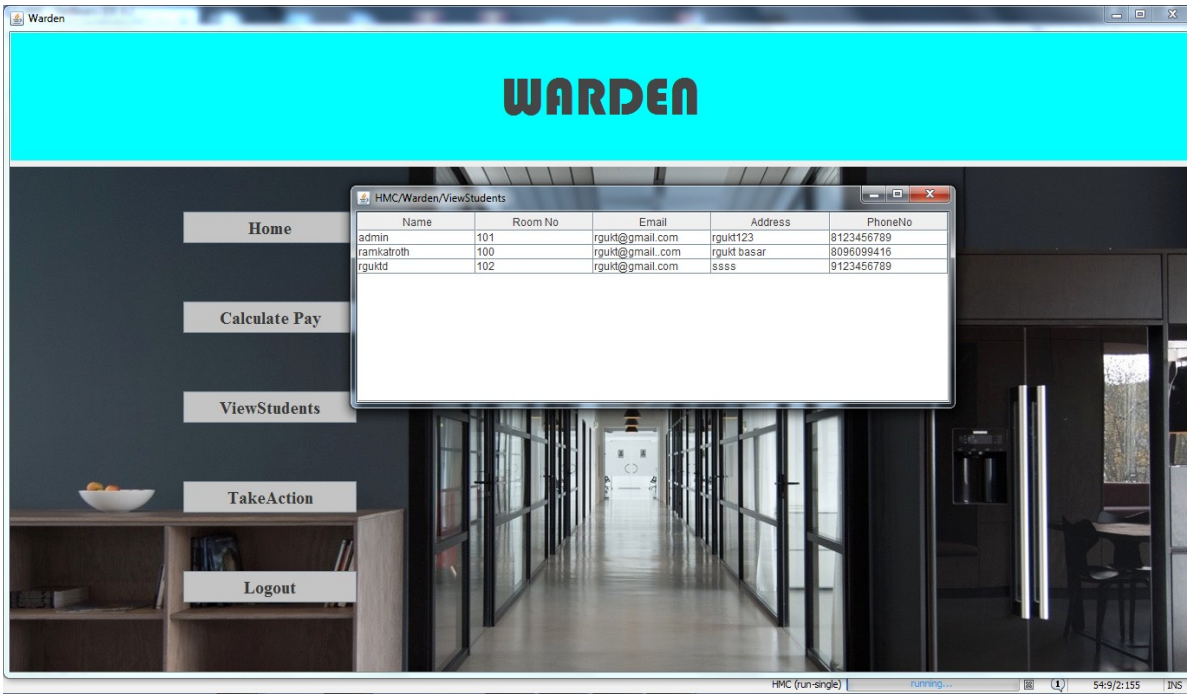

HMC/ADMIN/ADD EMPLOYEE
Home
ADD EMPLOYEE
Back
UserName
rguktbasar
Password
*****
Add
Clear
Message
Successfully Added
OK

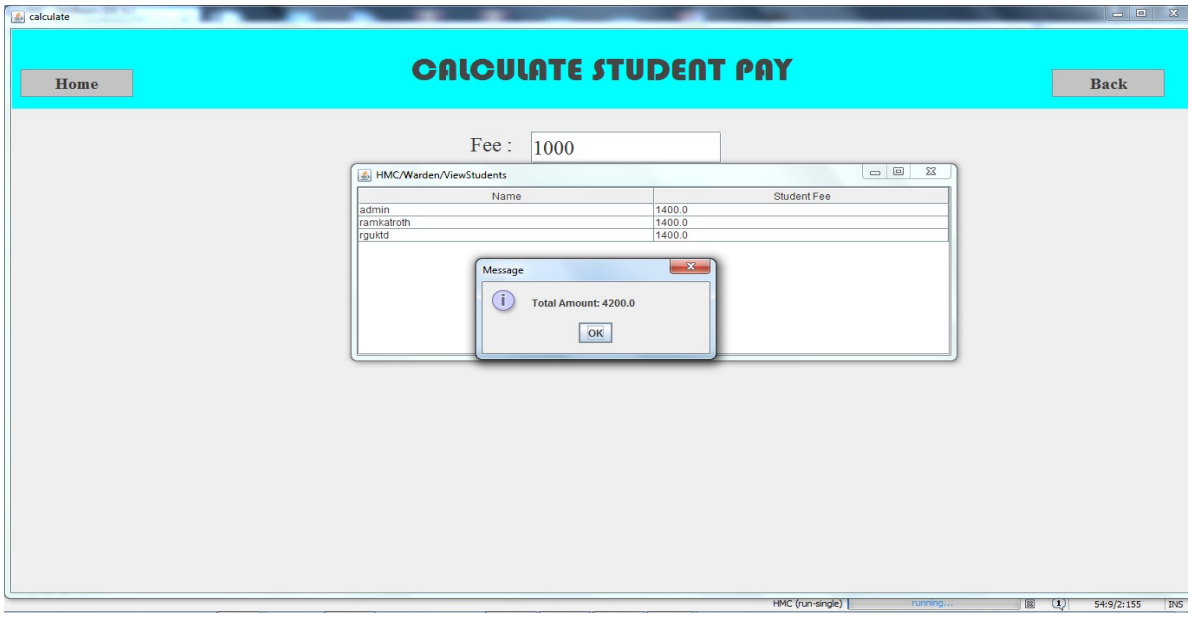

HMC/LOGIN
EMPLOYEE LOGIN
UserName
messadmin
Password
****
Login
Register

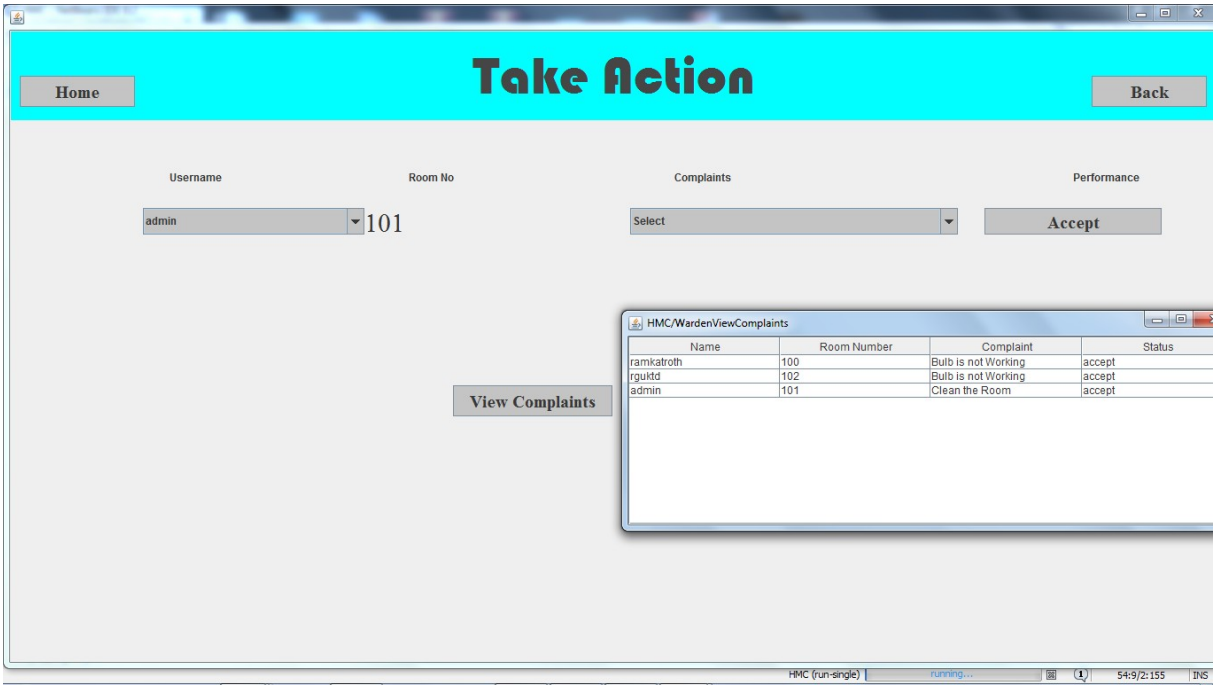

MessManager
Mess Manager
Home
CalculateMessBills
Logout


calculate
Home
CALCULATE MESS PAY
Back
Fee :
1000
CalculatePay
Message
Calucating Fees completed
Toatal Amount:3000.0
OK
HMC (run)
46:23
INS


Warden
WARDEN
Home
Calculate Pay
ViewStudents
TakeAction
Logout


Warden
WARDEN
Home
Calculate Pay
ViewStudents
TakeAction
Logout
HMC/Warden/ViewStudents
Name
Room No
Email
Address
PhoneNo
admin
101
rgukt@gmail.com
rgukt123
8123456789
ramkatroth
100
rgukt@gmail..com
rgukt basar
8096099416
rguktd
102
rgukt@gmail.com
ssss
9123456789
HMC (run-single)
running...
54:9/2:155
INS





7.Conclusion:

This project gives the platform for all the universities to enroll the students in an online and performs the required operations of student mentioned in the document.

8. Future Scope:

This project can be further extended by adding new features like getting the updates of the university activities and also to store the information in the central system like HUB**.**